

Headquarters U.S. Air Force

Integrity - Service - Excellence

The PESHE – A Reviewer’s Perspective

Abstract 8279



NDIA Environment, Energy, and Sustainability
Symposium - Acquisition Track
Denver, Colorado

Sam Brown, Alion Science & Technology

Kimberly Dauterman, Booz | Allen | Hamilton

U.S. AIR FORCE

4 May 2009

Report Documentation Page			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE 04 MAY 2009	2. REPORT TYPE	3. DATES COVERED 00-00-2009 to 00-00-2009		
4. TITLE AND SUBTITLE The PESHE - A Reviewer's Perspective		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Alion Science & Technology, 1750 Tysons Boulevard Suite 1300, McLean, VA, 22102		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited				
13. SUPPLEMENTARY NOTES Presented at the NDIA Environment, Energy Security & Sustainability (E2S2) Symposium & Exhibition held 4-7 May 2009 in Denver, CO.				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 15
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	19a. NAME OF RESPONSIBLE PERSON	



U.S. AIR FORCE

Overview

- Purpose of Presentation
- Situations that Drive Information in the PESHE
- What is the “Reviewer’s Perspective”
- Some Indicators of an Effective ESOH Effort
- Some “Fatal” Flaws for PESHEs
- Some Examples from Real PESHEs



U.S. AIR FORCE

Purpose of Presentation

- **PESHE requirements and expectations have evolved**
- **Content of PESHEs and Service emphasis on ESOH has lagged**
- **Current circumstances and initiatives demand more attention on meeting requirements and expectations**

Several related presentations being given during the symposium will complement this discussion



U.S. AIR FORCE

Situations that Drive Information in the PESHE

- Preventable accidents of any kind reduce readiness and combat effectiveness.
 - May 03: SECDEF memo to reduce mishaps by 50%
 - Spawned three USD(AT&L) memos on ESOH processes and risk reporting
- Basing weapon systems is complicated by environmental impacts on the community
 - Jan 09: SECAF/CSAF directed review to improve basing processes including early involvement by program offices
- Future regulation of currently non-regulated chemicals as potential to impact readiness and operation
 - Apr 09: OSD memo directs elimination of Cr6+ from systems when possible; PEO approval when elimination not feasible

Policy and guidance for ESOH hazard identification, risk assessment, and risk acceptance within the PESHE already addresses each of these areas.



What is the “Reviewer’s Perspective”

Does the PESHE address what policy requires?

- Identification of ESOH Responsibilities
- Strategy for integrating ESOH into the SE Process
- Identification of ESOH Risks and their Status
- Method of tracking hazards throughout the life cycle
- Identification of Hazmats, wastes, and pollutants (discharges/emissions/noise); plans for minimization/disposal
- NEPA Compliance Schedule

Source: DoDI 5000.02, Enclosure 12, Paragraph 6



U.S. AIR FORCE

Some Indicators of an Effective ESOH Effort

■ Identification of ESOH Responsibilities

- Personnel with experience in each of the ESOH areas (i.e., E, S, and OH) as part of the ESOH effort
- A description of how E, S, & OH personnel will work together as co-equal partners and who is responsible for ensuring the efforts are integrated
- A description of the contractor's role and the Government's role in the ESOH effort and how they will interface, including the Government responsibility for risk acceptance
- A description of how the ESOH effort will interface with the Human System Integration effort in the overlapping areas of interest



U.S. AIR FORCE

Some Indicators of an Effective ESOH Effort

■ Identification of ESOH Responsibilities

- Personnel with experience in each of the ESOH areas (i.e., E, S, and OH) as part of the ESOH effort
- A description of how E, S, & OH personnel will work together as co-equal partners and who is responsible for ensuring the efforts are integrated
- A description of the contractor's role and the Government's role in the ESOH effort and how they will interface, including the Government responsibility for risk acceptance
- A description of how the ESOH effort will interface with the Human System Integration effort in the overlapping areas of interest

■ Strategy for integrating ESOH into the SE Process

- A description of how the ESOH effort will be integrated into the overall Systems Engineering effort, including risk mitigation measures that require engineering solutions



U.S. AIR FORCE

Some Indicators of an Effective ESOH Effort

- Identification of ESOH Risks and their Status
 - Discussion of potential risks and known risk areas of legacy systems
 - Initially a plan for, and later the specific identification of, ESOH risk and their current status



U.S. AIR FORCE

Some Indicators of an Effective ESOH Effort

- Identification of ESOH Risks and their Status
 - Discussion of potential risks and known risk areas of legacy systems
 - Initially a plan for, and later the specific identification of, ESOH risk and their current status
- Method of tracking hazards throughout the life cycle
 - Plans for incorporation of newly identified hazards/risks throughout the life of the program
 - Discussion of hazard tracking and mitigation effectiveness during sustainment



U.S. AIR FORCE

Some Indicators of an Effective ESOH Effort

- Identification of ESOH Risks and their Status
 - Discussion of potential risks and known risk areas of legacy systems
 - Initially a plan for, and later the specific identification of, ESOH risk and their current status
- Method of tracking hazards throughout the life cycle
 - Plans for incorporation of newly identified hazards/risks throughout the life of the program
 - Discussion of hazard tracking and mitigation effectiveness during sustainment
- Identification of Hazmats, etc.
 - A discussion of any major issues anticipated/identified posed by discharges, emissions, or noise. Where are hazmats, wastes, and pollutants identified?



U.S. AIR FORCE

Some Indicators of an Effective ESOH Effort

- Identification of ESOH Risks and their Status
 - Discussion of potential risks and known risk areas of legacy systems
 - Initially a plan for, and later the specific identification of, ESOH risk and their current status
- Method of tracking hazards throughout the life cycle
 - Plans for incorporation of newly identified hazards/risks throughout the life of the program
 - Discussion of hazard tracking and mitigation effectiveness during sustainment
- Identification of Hazmats, etc.
 - A discussion of any major issues anticipated/identified posed by discharges, emissions, or noise. Where are hazmats, wastes, and pollutants identified?
- NEPA Compliance Schedule
 - A thoughtful identification of system-related NEPA actions with the time-frame and proponents identified
 - The program office approach for communicating system-specific information relevant to NEPA actions by other proponents



U.S. AIR FORCE

Some “Fatal” Flaws for MS B PESHEs

- Reciting the OSD requirements for a PESHE without a discussion of how those requirements will be implemented by the program
- Following outdated formats for content
- Failure to discuss plans for conducting appropriate Hazard Analyses
- Asserting that the system poses no hazards
- Failure to define a risk matrix tailored to the program
- Describing separate efforts for “System Safety” and for “ESOH”
- Invoking a Categorical Exclusion that pre-dates the PESHE, any system design, or hazard analyses



U.S. AIR FORCE

Some “Fatal” Flaws for MS C (and Later) PESHEs

- Extensive discussion of system description with little discussion of results
- Failure to adjust the “plan” in the Milestone B PESHE to accommodate changing ESOH policy
- No discussion or evidence of completed hazard analyses (especially when the PESHE states that such hazard analyses will be conducted)
- Hazards and their associated risks/status are not identified
- Failure to discuss the plan for accepting risks prior to testing events



U.S. AIR FORCE

Some Examples from Real PESHEs

- Using COTS hardware as justification for no hazard analysis
 - “ [REDACTED] is being developed and deployed using COTS hardware and COTS/GOTS software that does not contain nor expose users to any hazardous materials (HAZMAT) under normal use.”
- The total explanation for how ESOH would be integrated in the SE process
 - “The Program Manager is responsible for integrating an effective ESOH program over the life cycle of the [REDACTED] Program.”
- Assuming responsibility for contractor’s internal safety program
 - “ [REDACTED] policy is to provide safety, health and environmental training as required by law and/or contractual requirement, to ensure that employees can perform their tasks in a safe manner, and for employee education and awareness. Employee training is primarily the responsibility of line management (supervision) with participation from [program office] ES&H [IPT] when appropriate.”



U.S. AIR FORCE

Complementing Presentations

Date	Time	Abstract Number	Rm	Presenter	Title
Wed	0800	8210	501	Bob Smith	Acquisition ESOH Risk Management – How to Make it Work
Wed	1530	8068	501	Karen Gill	Hazardous Materials Management and Risk Assessment Using MIL-STD-882D
Wed	1630	8211	501	Kenneth Dormer	U.S. Air Force Technical Sufficiency Reviews of Acquisition ESOH Risk Management
Thurs	0900	8066	501	Dave Asiello	Programmatic ESOH Evaluation - DoD Requirements and Expectations
Thurs	1100	8209	501	Kenneth Dormer	Acquisition ESOH Risk Management and HAZMAT Management